

Listing of Claims

1. (Previously Presented) A service node for coupling a remote client to a network having at least one server, said service node comprising:
 - a) a gateway configured for connection to a network;
 - b) a switch configured for connection to a remote client;
 - c) a data routing system extending from said switch to said gateway, said switch, data routing system and gateway collectively forming a path, through said service node, configured for coupling said remote client to said network;
 - d) a bandwidth measurement device coupled to said gateway, said bandwidth measurement device configured for independently determining upload or download data transfer rates of data packets transferred between said remote client and said gateway;
 - e) a measurement application resident on said bandwidth measurement device, said measurement application determining said upload or download data transfer rates for said bandwidth measurement device, wherein said bandwidth measurement application pauses prior to determining said upload or download data transfer rates until other activity on said remote client has ended; and
 - f) an applet maintained by said measurement application suitable for download to said remote client and configured for independently determining upload or download data transfer rates between said remote client and said gateway.
2. (Original) The service node of claim 1 wherein said data routing system is comprised of a router coupled to said switch and said gateway.
3. (Canceled)

4. (Previously Presented) The service node of claim 1 wherein said switch is an ATM edge switch.
5. (Previously Presented) The service node of claim 1, wherein the service node is an internet service provider and said network is the Internet.
6. (Previously Presented) The service node of claim 1 wherein said bandwidth measurement device is a server.
- 7-9. (Canceled)
10. (Previously Presented) The service node of claim 6, wherein a web application resides on said bandwidth measurement server, said remote client accessing said measurement application via said web application.
11. (Previously Presented) The service node of claim 10, wherein said bandwidth measurement server further comprises a measurement database coupled to said measurement application, said measurement database maintaining data collected during measurement of said upstream or downstream data transfer rates.
- 12-29. (Canceled)
30. (Previously Presented) The service node of claim 1, wherein said bandwidth measurement device distinguishes the upload or download data transfer rate between the remote client and the gateway from the upload or download data transfer rate between the remote client and the network.
31. (Previously Presented) The service node of claim 1, wherein, when determining said upload data transfer rate between said remote client and said gateway, said downloaded applet generates said data packets originating at said remote client and, when determining said download data transfer rate between said gateway and said remote client, said downloaded applet determines said

download data transfer rate based upon an analysis of said data packets generated by said measurement application upon arrival at said remote client.

32. (Previously Presented) The service node of claim 1, wherein said bandwidth measurement application further pauses prior to determining said upload or download data transfer rates until other remote clients coupled to said service node that are performing bandwidth measurement tests have completed their bandwidth measurement tests.

33-34. (Canceled)